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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,689	01/18/2007	Hideki Shimada	060292	3721
21874	7590	08/24/2009		
EDWARDS ANGELL PALMER & DODGE LLP			EXAMINER	
P.O. BOX 55874			LEE, REBECCA Y	
BOSTON, MA 02205				
			ART UNIT	PAPER NUMBER
			1793	
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			08/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,689	Applicant(s) SHIMADA ET AL.	
	Examiner REBECCA LEE	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,7-12,14,15 and 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,13 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/05/06, 11/22/06, 07/09/09, 07/10/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I, specie c), claims 1-3, 6, 13 and 16 in the reply filed on 06/30/09 is acknowledged.

Claims 4-5, 7-12, 14-15 and 17-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 06/30/09.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 6 and 16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Inasawa et al. (JP 10041062).

Inasawa et al. disclose an aluminum conductive material comprising aluminum or aluminum alloy and a conductive film formed on the surface (abstract). The crack

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(defect) in the conductive layer is not observed (sealed off) after heat treatment (sections 0018 and 0057).

The phrase of “by a hot water treatment or a steam treatment” recited in claim 1 and the limitations recited in claim 2, 6 and 16 are considered process limitations in product by process claims. It is well settled that a product-by-process claim defines a product, and that when the prior art discloses a product substantially the same as that being claimed, the burden falls upon the applicant to show that any process steps associated therewith results in a product materially different from that disclosed in the prior art. See *In re Thorpe*, (227 USPQ 964), *In re Brown*, (173 USPQ 685), *In re Fessman*, (180 USPQ 524) and MPEP 2113. In the instant case, one skilled in the art would have envisaged that the claimed aluminum material is anticipated by Inasawa et al., or in the alternative, expected the claimed aluminum is obvious over Inasawa et al. since the aluminum material disclosed by Inasawa et al. appears to be substantially identical with the one claimed. Burden is shifted to the applicant to show that the claimed process results in a materially different aluminum material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. (JP 02234349) in view of Inasawa et al. (JP 10041062).

Taniguchi et al. teach an aluminum conductive material comprising aluminum and a conductive film formed on the surface, wherein the conductive film has a thickness of 5 to 50 μm (abstract). The thickness of the film disclosed by Taniguchi et al. overlaps the claimed range, which is prima facie evidence of obviousness MPEP 2144.05 I.

Taniguchi et al. do not expressly teach the defects in the conductive film are substantially sealed off.

Inasawa et al. teach an aluminum conductive material wherein the defects in the conductive film are substantially sealed off (see rejection above).

It would have been obvious to one of ordinary skill in the art to seal off the defects in the conductive film by prolonged heat treatment as taught by Inasawa et al. in manufacturing the aluminum conductive material of Taniguchi et al. in order to seal off the cracks (defects) in the conductive film which may lead to gap corrosion occurring on boundary surfaces of different metals as taught by Inasawa et al. (abstract).

The process limitation of “by a hot water treatment or a steam treatment” recited in claim 1 and the limitations recited in claim 2, 6 and 16 are rejected for the same reason as stated in the rejection above.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REBECCA LEE whose telephone number is (571)270-5856. The examiner can normally be reached on Monday-Friday 8:00 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROY KING can be reached on (571)272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./
Examiner, Art Unit 1793

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793